










Programming Guide - Overview

This documentation applies to all platforms on which Natural can be used. It provides basic information on various aspects of programming with Natural. You should be familiar with this information before you start to write Natural applications. See also Natural for Mainframes - Tutorial. This tutorial contains a series of sessions which introduce you to some of the basics of Natural programming.

-  **Reporting Mode or Structured Mode** Describes the differences between the two Natural programming modes. Generally, it is recommended to use structured mode exclusively, because it provides for more clearly structured applications. Therefore all explanations and examples in this documentation refer to structured mode. Any peculiarities of reporting mode will not be taken into consideration.
-  **Defining Names and Fields** Describes how you define the fields you wish to use in a program.
-  **Accessing Data in an Adabas Database** Describes various aspects of using Natural to access data in an Adabas database.
On principle, the features and examples contained in this document also apply to other database management systems supported by Natural. Differences, if any, are described in the Natural Statements documentation or in the Natural Parameter Reference documentation.
-  **Output of Data** Discusses various aspects of how you can control the format of an output report created with Natural, that is, the way in which the data are displayed.
-  **Object Types** Within an application, you can use several types of programming objects to achieve an efficient application structure. This document discusses the various types of Natural programming objects, such as data areas, programs, subprograms, subroutines, help routines, maps.
-  **Further Programming Aspects** Discusses various other aspects of programming with Natural.
-  **Designing User Interfaces** Provides information on components of Natural which you can use to design the user interfaces of your applications.
-  **Keywords and Reserved Words** This document contains a list of all keywords and words that are reserved in the Natural programming language.
-  **NaturalX** Describes how to develop and distribute NaturalX applications on Windows platforms.
On mainframe and UNIX platforms, you can use NaturalX to apply a component-based programming style. However, on these platforms the components cannot be distributed and can only run in a local Natural session. Therefore, only the section Developing NaturalX Applications is relevant.

Example Programs

This documentation contains several examples of Natural programs, as well as references to further example programs not shown in the documentation.

All these programs are also provided in source-code form in the Natural library "SYSEXPG". (The programs are all written in structured mode.)

Further example programs of using Natural statements are provided in the Natural library "SYSEXRM".

Please ask your Natural administrator about the availability of these libraries at your site.

The example programs use data from the files "EMPLOYEES" and "VEHICLES", which are supplied by Software AG for demonstration purposes.